



standardized

ARCO

MULTIFIN CONVECTORS

AND AMERICAN ENCLOSURES

**"STOCK MODEL" —FOR
ORDINARY INSTALLATIONS
(HOT WATER ONLY)**

**"SPECIAL SERVICE LINE" —FOR
SPECIALIZED INSTALLATIONS
(HOT WATER AND TWO-PIPE STEAM ONLY)**

**"MARINE" —FOR SHIP-BOARD
INSTALLATIONS
(HOT WATER AND TWO-PIPE STEAM ONLY)**

Expertly Engineered FOR RECESSED, PARTIALLY RECESSED, FREE STANDING OR WALL
HUNG INSTALLATIONS—IN HOMES, APARTMENTS, OFFICES, SCHOOLS, SHIPS AND OTHER TYPES OF CONSTRUCTION

AMERICAN-Standard
First in Heating and Plumbing

stock model

ARCO MULTIFIN

CONVECTOR • ENCLOSURE

Hot Water Systems only



Arco Multifin Stock Model Convectors and Enclosures provide indoor warmth that meets every requirement of health and comfort. They heat by convection and the heating element is completely concealed. Good engineering in our Institute of Heating Research accounts for the high heat output that assures quick heating response and economical performance. Sturdy construction assures long, enduring service.

Stock Models are available only as assembled units, consisting of an NFS Enclosure and Multifin Convector of specified size, with X-4 tapping connections. There are 63 popular sizes from which to make selection.

EASY INSTALLATION

When the assembled Arco Multifin Stock Model Units are removed from the sealed cartons they are ready to hook up. The Convector is securely bolted on to welded-in supporting brackets in the Enclosure. Before installing, it is only necessary to lower the Convector to its proper level by removing the lock nuts from the suspension bolts. These lock nuts are furnished only to keep the Convector tightly in place during shipment. The slip-on fronts slide easily into place, without screws or clamps.

LIGHT WEIGHT—EASY TO HANDLE AND STOCK

"Stock Model" Units weigh less than $1\frac{1}{2}$ lbs. per square foot,—so little that most sizes can be carried under the arm. The sealed cartons have no sharp edges or corners. Stocking is no problem at all. The strong, protective cartons are plainly marked for identification. They can be stacked on shelves or floor . . . according to size . . . with minimum effort and without damage . . . readily accessible for filling orders or keeping records.



MULTIFIN CONVECTORS—the elements that provide the heat. Arco Multifin Stock Model Convectors are made in 3 sizes as illustrated. From top to bottom they are: No. 5— $5\frac{3}{8}$ " wide; No. 7— $7\frac{3}{8}$ " wide; No. 10— $10\frac{3}{8}$ " wide.

TAPPINGS

No. 5 Multifin Unit is tapped $\frac{3}{4}$ in., the No. 7 Unit is tapped 1 in. and the No. 10 Unit $1\frac{1}{4}$ in.



NFS ENCLOSURE—the element that circulates the heat

A QUALITY ENCLOSURE

The attractive NFS Enclosure, in which the Convector element is assembled and concealed, is correctly designed and proportioned to conduct the right volume of air over the hot surface of the Convector to attain maximum efficiency. Made of sheet steel with a priming coat of paint that provides a ground for final decorative treatment.

63

POPULAR STOCK SIZES AVAILABLE

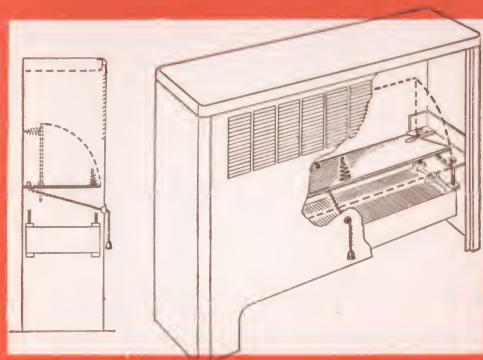


FREE STANDING



SEMI-RECESSED

The same unit adaptable for either free standing or semi-recessed installations.



FULL FLOW DAMPER

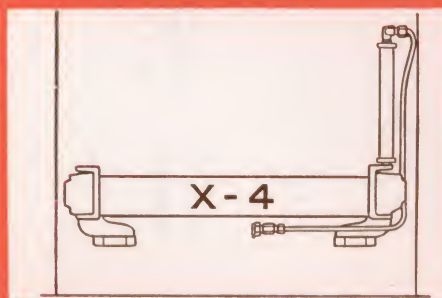
An optional feature at small extra cost, is the efficient Full-Flow Damper shown in the diagram above. It provides a free air passage when fully open and when closed restricts the circulation to a minimum.

The design is simple but effective. It is operated by a beaded chain extending through Enclosure front and providing adjustment to keep damper at any setting. Easily installed on the job. Packed in individual containers plainly marked with Unit number for which intended.

SPECIAL FEATURES FOR EFFICIENCY AND CONVENIENCE

ARCO AIR CHAMBER

To eliminate frequent venting in up-feed systems, it is necessary to provide more air accumulation space than normally allowed in non-ferrous elements. For "Stock Model" Multifin Convectors the efficient Arco Air Chamber is available at small extra cost. It is illustrated below. The Chamber is vented by means of a coin type vent provided at end of the copper tubing.



X-4 CONNECTION

Multifin Stock Models are furnished only with X-4 Connections, as shown at left. This is one of the most popular connections, equally adaptable for free standing or semi-recessed installations. Piping is concealed by the "legs" of Enclosures. Valves when used are easily accessible through arched inlet.

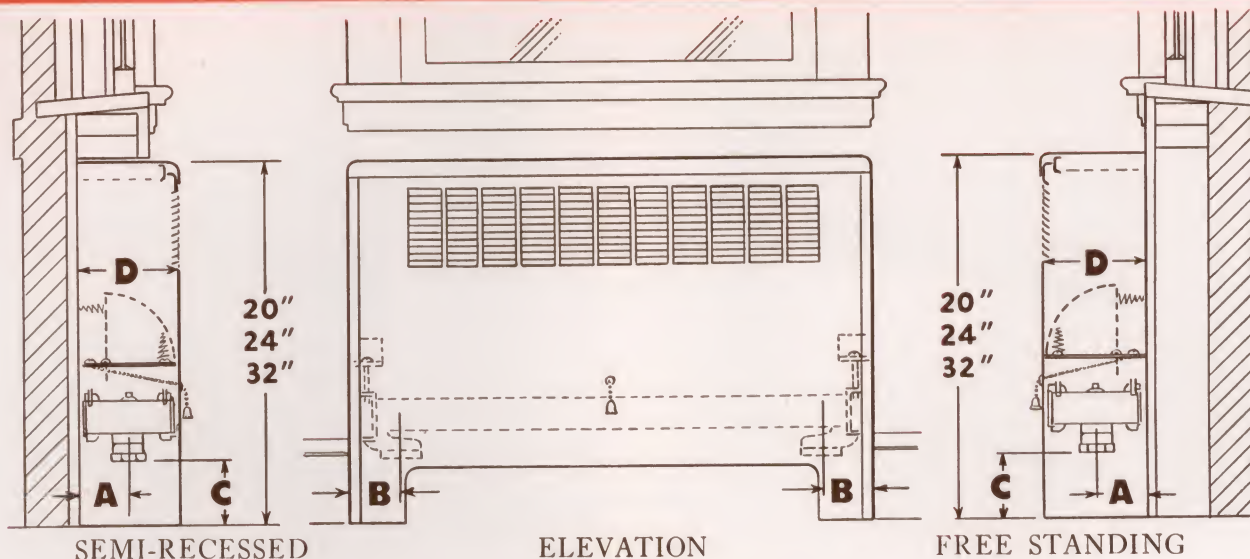
SLIP-ON FRONTS

A feature which has special appeal both to installers and users. The fronts of NFS Enclosures are designed to slip easily and rigidly in place without screws, clamps or fasteners of any kind. They save time and labor in installing and make it easy for users to remove front when necessary.

stock model

ARCO MULTIFIN CONVECTOR • ENCLOSURE

ROUGHING-IN DIMENSIONS



Unit No.	A	B	C	D	Tap Size
No. 5	2 $\frac{7}{8}$ "	2 $\frac{9}{16}$ "	4 $\frac{1}{2}$ "	6 $\frac{1}{4}$ "	$\frac{3}{4}$ "
No. 7	3 $\frac{7}{8}$ "	2 $\frac{9}{16}$ "	4 $\frac{1}{2}$ "	8 $\frac{1}{4}$ "	1"
No. 10	5 $\frac{1}{2}$ "	2 $\frac{7}{8}$ "	4"	11 $\frac{1}{2}$ "	1 $\frac{1}{4}$ "

NOTE: Right hand Header is provided with $\frac{1}{4}$ " plugged air vent tapping for installation of Arco Air Chamber.

RATINGS

STOCK MODEL

HOT WATER CAPACITIES — Forced Circulation

Expressed in MBH (thousand Btu per hour) Based on Average Water Temperatures Shown

Enclosure Height	* Ordering Unit No.	Sq. Ft. Output E.D.R.	Approx. Shp. Wt.	Average Water Temperature °F.					Enclosure Length Inches	Enclosure Depth
				215	210	200	190	180		
				Heat Emission in Btu						
				221	211	193	174	157		
20"	520-20	16.2	30	3.6	3.4	3.1	2.8	2.5	21 $\frac{1}{8}$	6 $\frac{1}{4}$ "
	524-20	19.9	34	4.4	4.2	3.8	3.5	3.1	25 $\frac{1}{8}$	
	528-20	23.7	37	5.2	5.0	4.6	4.1	3.7	29 $\frac{1}{8}$	
	532-20	27.4	41	6.1	5.8	5.3	4.8	4.3	33 $\frac{1}{8}$	
	536-20	31.1	44	6.9	6.6	6.0	5.4	4.9	37 $\frac{1}{8}$	
	540-20	34.8	48	7.7	7.3	6.7	6.1	5.5	41 $\frac{1}{8}$	8 $\frac{1}{4}$ "
	544-20	38.5	52	8.5	8.1	7.4	6.7	6.0	45 $\frac{1}{8}$	
	548-20	42.2	55	9.3	8.9	8.1	7.3	6.6	49 $\frac{1}{8}$	
	556-20	49.6	62	11.0	10.5	9.6	8.6	7.8	57 $\frac{1}{8}$	
	564-20	57.0	70	12.6	12.0	11.0	9.9	8.9	65 $\frac{1}{8}$	
	732-20	36.3	45	8.0	7.7	7.0	6.3	5.7	33 $\frac{1}{8}$	11 $\frac{1}{2}$ "
	736-20	41.2	50	9.1	8.7	8.0	7.2	6.5	37 $\frac{1}{8}$	
	740-20	46.2	55	10.2	9.7	8.9	8.0	7.3	41 $\frac{1}{8}$	
	748-20	56.1	65	12.4	11.8	10.8	9.8	8.8	49 $\frac{1}{8}$	11 $\frac{1}{2}$ "
	756-20	66.0	75	14.6	13.9	12.7	11.5	10.4	57 $\frac{1}{8}$	
	764-20	75.9	85	16.8	16.0	14.6	13.2	11.9	65 $\frac{1}{8}$	
	1036-20	55.1	77	12.2	11.6	10.6	9.6	8.7	37 $\frac{1}{8}$	
	1040-20	61.8	82	13.7	13.0	11.9	10.8	9.7	41 $\frac{1}{8}$	
1048-20	75.3	92	16.6	15.9	14.5	13.1	11.8	49 $\frac{1}{8}$		
1056-20	88.8	102	19.6	18.7	17.1	15.5	13.9	57 $\frac{1}{8}$		
1064-20	102.3	112	22.6	21.6	19.7	17.8	16.1	65 $\frac{1}{8}$		

CONTINUED ON NEXT PAGE

stock model

ARCO MULTIFIN CONVECTOR • ENCLOSURE RATINGS • CONTINUED

Enclosure Height	Ordering Unit No.	Sq. Ft. Output E.D.R.	Approx. Shp. Wt.	Average Water Temperature °F.					Enclosure Length Inches	Enclosure Depth
				215	210	200	190	180		
				Heat Emission in Btu						
				221	211	193	174	157		
24"	520-24	18.0	32	4.0	3.8	3.5	3.1	2.8	21 $\frac{1}{8}$	6 $\frac{1}{4}$ "
	524-24	22.2	36	4.9	4.7	4.3	3.9	3.5	25 $\frac{1}{8}$	
	528-24	26.3	41	5.8	5.5	5.1	4.6	4.1	29 $\frac{1}{8}$	
	532-24	30.5	45	6.7	6.4	5.9	5.3	4.8	33 $\frac{1}{8}$	
	536-24	34.6	49	7.6	7.3	6.7	6.0	5.4	37 $\frac{1}{8}$	
	540-24	38.7	54	8.6	8.2	7.5	6.7	6.1	41 $\frac{1}{8}$	
	544-24	42.9	58	9.5	9.1	8.3	7.5	6.7	45 $\frac{1}{8}$	8 $\frac{1}{4}$ "
	548-24	47.1	62	10.4	9.9	9.1	8.2	7.4	49 $\frac{1}{8}$	
	556-24	55.5	71	12.3	11.7	10.7	9.7	8.7	57 $\frac{1}{8}$	
	564-24	63.6	79	14.1	13.4	12.3	11.1	10.0	65 $\frac{1}{8}$	
	732-24	39.5	50	8.7	8.3	7.6	6.9	6.2	33 $\frac{1}{8}$	
	736-24	44.9	55	9.9	9.5	8.7	7.8	7.0	37 $\frac{1}{8}$	
	740-24	50.3	60	11.1	10.6	9.7	8.8	7.9	41 $\frac{1}{8}$	
	748-24	61.1	70	13.5	12.9	11.8	10.6	9.6	49 $\frac{1}{8}$	11 $\frac{1}{2}$ "
	756-24	71.9	80	15.9	15.2	13.9	12.5	11.3	57 $\frac{1}{8}$	
	764-24	82.7	90	18.3	17.4	16.0	14.4	13.0	65 $\frac{1}{8}$	
	1036-24	59.6	80	13.2	12.6	11.5	10.4	9.4	37 $\frac{1}{8}$	
	1040-24	67.1	86	14.8	14.2	13.0	11.7	10.5	41 $\frac{1}{8}$	
	1048-24	81.6	99	18.0	17.2	15.7	14.2	12.8	49 $\frac{1}{8}$	
	1056-24	96.3	111	21.3	20.3	18.6	16.8	15.1	57 $\frac{1}{8}$	6 $\frac{1}{4}$ "
	1064-24	110.7	124	24.5	23.4	21.4	19.3	17.4	65 $\frac{1}{8}$	
520-32	20.6	38	4.6	4.3	4.0	3.6	3.2	21 $\frac{1}{8}$		
524-32	25.4	43	5.6	5.4	4.9	4.4	4.0	25 $\frac{1}{8}$		
528-32	30.2	48	6.7	6.4	5.8	5.3	4.7	29 $\frac{1}{8}$		
532-32	35.0	53	7.7	7.4	6.8	6.1	5.5	33 $\frac{1}{8}$		
536-32	39.7	58	8.8	8.4	7.7	6.9	6.2	37 $\frac{1}{8}$		
540-32	44.4	63	9.8	9.4	8.6	7.7	7.0	41 $\frac{1}{8}$	8 $\frac{1}{4}$ "	
544-32	49.2	68	10.9	10.4	9.5	8.6	7.7	45 $\frac{1}{8}$		
548-32	53.9	74	11.9	11.4	10.4	9.4	8.5	49 $\frac{1}{8}$		
556-32	63.5	84	14.0	13.4	12.3	11.0	10.0	57 $\frac{1}{8}$		
564-32	70.2	94	15.5	14.8	13.5	12.2	11.0	65 $\frac{1}{8}$		
732-32	44.6	61	9.9	9.4	8.6	7.8	7.0	33 $\frac{1}{8}$		
736-32	50.6	67	11.2	10.7	9.8	8.8	7.9	37 $\frac{1}{8}$	11 $\frac{1}{2}$ "	
740-32	56.7	73	12.5	12.0	10.9	9.9	8.9	41 $\frac{1}{8}$		
748-32	68.9	84	15.2	14.5	13.3	12.0	10.8	49 $\frac{1}{8}$		
756-32	81.1	96	17.9	17.1	15.7	14.1	12.7	57 $\frac{1}{8}$		
764-32	93.3	108	20.6	19.7	18.0	16.2	14.6	65 $\frac{1}{8}$		
1036-32	67.2	92	14.9	14.2	13.0	11.7	10.6	37 $\frac{1}{8}$		
1040-32	75.4	98	16.7	15.9	14.6	13.1	11.8	41 $\frac{1}{8}$		
1048-32	91.8	109	20.3	19.4	17.7	16.0	14.4	49 $\frac{1}{8}$		
1056-32	108.2	121	23.9	22.0	20.9	18.8	17.0	57 $\frac{1}{8}$		
1064-32	124.6	132	27.5	26.3	24.0	21.7	19.6	65 $\frac{1}{8}$		

*Last 2 figures of "Unit No." indicate enclosure height.
NOTE: Enclosure length equals convector length "L" plus 1 $\frac{1}{2}$ ".
For Sizing "Stock Model" Arco Multifin Convectors, the following simple formula applies:
First calculate the heat loss of the room in Btu's, using a recognized and approved method. Divide heat loss by 1,000 to determine MBH (thousand Btu per hour). Then, in Rating Tables above, locate the required MBH for the average water temperature desired and determine Convector from "Unit No." column at left (in line with MBH selected) — keeping in mind the Enclosure width and height required.
For example: — Assume heat loss to be 6,000 (or 6.0MBH) per hour and average water temperature in Convector 190° with 20 in. to 24 in. available

Enclosure height. Referring to Rating Tables to select the proper "Stock Model" Unit, in 190° Column we find —

For Forced Hot Water — No. 540-20 = 6.1 MBH
(6 $\frac{1}{4}$ " Depth x 41 $\frac{1}{8}$ " Length x 20" Height)
No. 536-24 = 6.0 MBH
(6 $\frac{1}{4}$ " Depth x 37 $\frac{1}{8}$ " Length x 24" Height)
No. 732-24 = 6.9 MBH
(8 $\frac{1}{4}$ " Depth x 33 $\frac{1}{8}$ " Length x 24" Height)

FOR SIZING ARCO "STOCK MODEL" MULTIFIN FOR GRAVITY HOT WATER

HEAT EMISSION IN B.T.U. PER SQ. FT.								
Average Water Temperature °F.	215	210	200	190	180	170	160	150
GRAVITY CIRCULATION	192	183	167	151	135	120	106	90

For Gravity Circulation, divide the calculated Btu heat loss by the Heat Emission listed above for Gravity Circulation, based on the average water temperature to be used, and select convector on the basis of the resulting square feet of equivalent steam rating.
EXAMPLE:
Assume 6000 Btu per hour as the heat loss of a room and 180°F. as the average water temperature:
Btu required 6000
Heat Emission 135 = 44.4 square feet

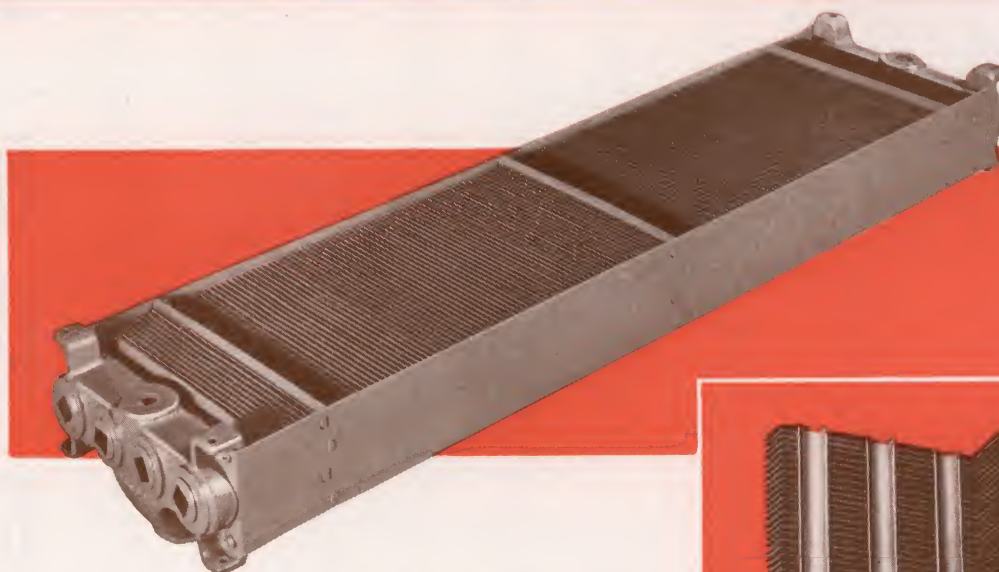
Referring to column "Sq. Ft. Output E.D.R.," select convector having the unit number and enclosure height desired, as near this rating as possible. See following examples:
No. 548 — 20" E.H. — 42.2 sq. ft.
No. 740 — 20" E.H. — 46.2 sq. ft.
No. 544 — 24" E.H. — 42.9 sq. ft.
No. 736 — 24" E.H. — 44.9 sq. ft.
No. 540 — 32" E.H. — 44.4 sq. ft.
No. 732 — 32" E.H. — 44.6 sq. ft.

special service line

ARCO MULTIFIN

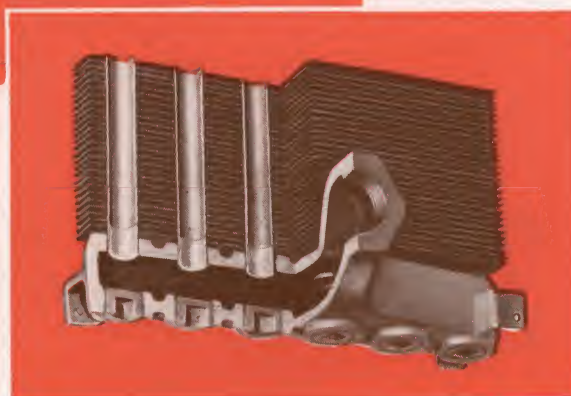
CONVECTORS *and* ENCLOSURES

For all Hot Water and Two-Pipe Steam Systems



In the field of non-ferrous type convectors, the Arco Multifin stands out for excellence in quality, high efficiency and satisfactory performance. It is correctly designed in every detail; it has properly proportioned tubes and well-spaced fins to permit the rapid heat transfer that produces economical heating, and can be relied upon for good, dependable service over the years.

Arco Multifin Convectors have been tested and rated at our Institute of Heating Research, a further assurance of high heat output and reliability.



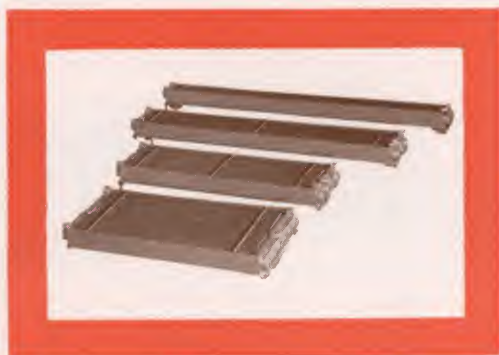
Cutaway view of Arco Multifin Convector, showing the cast iron header, copper tubes, bushings, non-ferrous fins, and tapping extensions. Top (or "Y") tapping is shown. Unit is reversed for bottom (or "X") tappings.

AMERICAN ENCLOSURES

Enclosures are made specially for ARCO Multifin Convectors and in combination they make a most attractive installation. Besides artistic design, these Enclosures are scientifically proportioned to conduct the right volume of air over the heated surfaces of the Convector, for utmost efficiency. Sturdy construction assures enduring service.

SOUND CONSTRUCTION AND DESIGN

Arco Multifin Convectors are made of the finest materials throughout. The Convector elements have $\frac{3}{4}$ in. diameter seamless copper tubes, correctly spaced non-ferrous fins, cast iron header,—and painted steel side plates. The tubes are expanded mechanically after fins are attached to insure positive and lasting contact. Tubes are inserted in machined openings in the headers and the joints made tight and leakproof by driving brass ferrules into the tube ends. Intelligent engineering and skilled workmanship combine to give these units the high efficiency and lasting qualities for which they are noted.

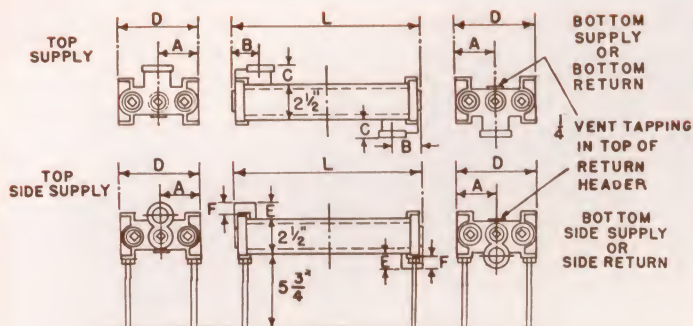


MADE IN FOUR WIDTHS

The Arco Multifin Convector is made in 4 widths as illustrated. From top to bottom they are: No. 3, $3\frac{3}{8}$ " wide; No. 5, $5\frac{3}{8}$ " wide; No. 7, $7\frac{3}{8}$ " wide; No. 10, $10\frac{5}{8}$ " wide.

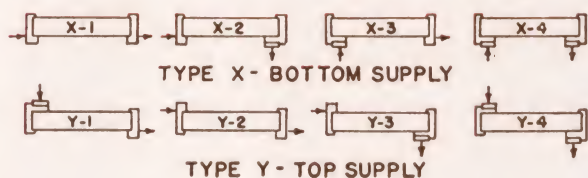
MODERN HEATING AT MODERATE COST!

DIMENSIONS AND TAPPINGS



TYPE	DEPTH D	A	B	C	E	F	SIZE OF TAPPINGS
No. 3	3 ³ / ₈ "	1 ¹¹ / ₁₆ "	1 ¹³ / ₁₆ "	1 ¹ / ₄ "	1 ¹³ / ₁₆ "	1 ¹⁵ / ₁₆ "	3/4"
5	5 ³ / ₈ "	2 ¹¹ / ₁₆ "	1 ¹³ / ₁₆ "	1 ¹ / ₄ "	1 ¹ / ₈ "	1 ¹⁵ / ₁₆ "	3/4"
7	7 ³ / ₈ "	3 ¹¹ / ₁₆ "	1 ¹³ / ₁₆ "	1 ¹ / ₄ "	1 ³ / ₁₆ "	1 ¹ / ₁₆ "	1"
10	10 ⁵ / ₈ "	5 ⁵ / ₁₆ "	2 ¹ / ₈ "	1 ³ / ₄ "	1 ¹¹ / ₁₆ "	1 ⁵ / ₁₆ "	1 ¹ / ₄ "

TYPICAL PIPING DIAGRAMS



NOTE—Type Y Headers not to be used on up-feed hot water systems.
A 1/4" vent tapping provided on top of all return headers.

ORDERING INSTRUCTIONS

In ordering "Special Service Line," specify "Arco Multifin Convactor," unit number (from Ratings Table on next page), type of connection (from diagram at left, below), tapping size, type of system—(water or two-pipe steam), enclosure type, enclosure height and any optional features desired and available.

In ordering "Stock Model" Convactor-Enclosures, merely specify Arco "Stock Model" Multifin, unit number (from Ratings Table on pages 4 and 5), tapping size, and whether with Arco Air Chamber and dampers.

For Approximate Weights see current Price Book.

TAPPINGS AND MISCELLANEOUS

No. 3 and No. 5 Multifin Units are tapped 3/4", No. 7 Unit is tapped 1", and No. 10 Unit is tapped 1 1/4". Except where elements only are ordered, all units will be shipped assembled in enclosure on welded-in supporting brackets. For elements only—adjustable supporting legs will be furnished.

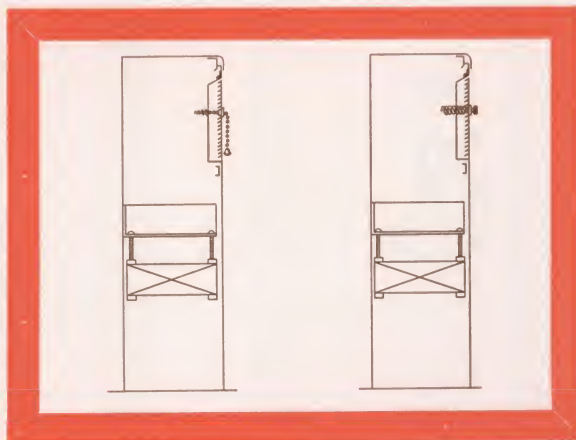
ARCO AIR CHAMBER

To eliminate frequent venting on up-feed systems, more air accumulation space is necessary than normally allowed in non-ferrous elements. For Multifin Convectors the efficient Arco Air Chamber, illustrated at left is available at small extra cost. The Chamber is vented by means of a coin type vent provided at end of the copper tubing.

DAMPERS (OPTIONAL)

Efficient dampers are available for Multifin Convactor Units, at small extra cost. The Chain type Damper shown in diagram at right, provides a free air passage when fully open and when closed restricts the circulation to a minimum. The Knob type, also illustrated, is operated by turning knob outside of enclosure front.

Both types are equally effective and are factory assembled to enclosure.



special service line

ARCO MULTIFIN

CONVECTORS and ENCLOSURES

RATINGS

SPECIAL SERVICE LINE

STEAM AND HOT WATER CAPACITIES—Forced Circulation

Hot Water Capacities as Expressed in MBH (thousand Btu per hour)
Based on Average Water Temperatures Shown

Enclosure Type and Height	Convector Unit No.	Sq. Ft. Rating Steam 215°F. 240 Btu	Average Water Temperature °F.								Convector Length "L" Inches
			215	210	200	190	180	170	160	150	
			Heat Emission in Btu								
			221	211	193	174	157	139	122	104	
20" NFS, OF, PF and 16" W, SW	320	10.6	2.3	2.2	2.0	1.8	1.7	1.5	1.3	1.1	19 ⁵ / ₈
	324	13.0	2.9	2.7	2.5	2.3	2.0	1.8	1.6	1.4	23 ⁵ / ₈
	328	15.3	3.4	3.2	3.0	2.7	2.4	2.1	1.9	1.6	27 ⁵ / ₈
	332	17.7	3.9	3.7	3.4	3.1	2.8	2.5	2.2	1.8	31 ⁵ / ₈
	336	20.1	4.4	4.2	3.9	3.5	3.2	2.8	2.5	2.1	35 ⁵ / ₈
	340	22.5	5.0	4.7	4.3	3.9	3.5	3.1	2.7	2.3	39 ⁵ / ₈
	344	24.9	5.5	5.3	4.8	4.3	3.9	3.5	3.0	2.6	43 ⁵ / ₈
	348	27.3	6.0	5.8	5.3	4.8	4.3	3.8	3.3	2.8	47 ⁵ / ₈
	356	32.1	7.1	6.8	6.2	5.6	5.0	4.5	3.9	3.3	55 ⁵ / ₈
	364	36.9	8.2	7.8	7.1	6.4	5.8	5.1	4.5	3.8	63 ⁵ / ₈
	520	16.2	3.6	3.4	3.1	2.8	2.5	2.3	2.0	1.7	19 ⁵ / ₈
	524	19.9	4.4	4.2	3.8	3.5	3.1	2.8	2.4	2.1	23 ⁵ / ₈
	528	23.7	5.2	5.0	4.6	4.1	3.7	3.3	2.9	2.5	27 ⁵ / ₈
	532	27.4	6.1	5.8	5.3	4.8	4.3	3.8	3.3	2.8	31 ⁵ / ₈
	536	31.1	6.9	6.6	6.0	5.4	4.9	4.3	3.8	3.2	35 ⁵ / ₈
	540	34.8	7.7	7.3	6.7	6.1	5.5	4.8	4.2	3.6	39 ⁵ / ₈
	544	38.5	8.5	8.1	7.4	6.7	6.0	5.4	4.7	4.0	43 ⁵ / ₈
	548	42.2	9.3	8.9	8.1	7.3	6.6	5.9	5.1	4.4	47 ⁵ / ₈
	556	49.6	11.0	10.5	9.6	8.6	7.8	6.9	6.1	5.2	55 ⁵ / ₈
	564	57.0	12.6	12.0	11.0	9.9	8.9	7.9	7.0	5.9	63 ⁵ / ₈
	732	36.3	8.0	7.7	7.0	6.3	5.7	5.0	4.4	3.8	31 ⁵ / ₈
	736	41.2	9.1	8.7	8.0	7.2	6.5	5.7	5.0	4.3	35 ⁵ / ₈
	740	46.2	10.2	9.7	8.9	8.0	7.3	6.4	5.6	4.8	39 ⁵ / ₈
	748	56.1	12.4	11.8	10.8	9.8	8.8	7.8	6.8	5.8	47 ⁵ / ₈
	756	66.0	14.6	13.9	12.7	11.5	10.4	9.2	8.1	6.9	55 ⁵ / ₈
	764	75.9	16.8	16.0	14.6	13.2	11.9	10.6	9.3	7.9	63 ⁵ / ₈
	1036	55.1	12.2	11.6	10.6	9.6	8.7	7.7	6.7	5.7	35 ⁵ / ₈
	1040	61.8	13.7	13.0	11.9	10.8	9.7	8.6	7.5	6.4	39 ⁵ / ₈
	1048	75.3	16.6	15.9	14.5	13.1	11.8	10.5	9.2	7.8	47 ⁵ / ₈
	1056	88.8	19.6	18.7	17.1	15.5	13.9	12.3	10.8	9.2	55 ⁵ / ₈
	1064	102.3	22.6	21.6	19.7	17.8	16.1	14.2	12.5	10.6	63 ⁵ / ₈
24" NFS, OF, PF and 20" W, SW	320	11.8	2.6	2.5	2.3	2.1	1.9	1.6	1.4	1.2	19 ⁵ / ₈
	324	14.4	3.2	3.0	2.8	2.5	2.3	2.0	1.8	1.5	23 ⁵ / ₈
	328	17.1	3.8	3.6	3.3	3.0	2.7	2.4	2.1	1.8	27 ⁵ / ₈
	332	19.7	4.4	4.2	3.8	3.4	3.1	2.7	2.4	2.0	31 ⁵ / ₈
	336	22.3	4.9	4.7	4.3	3.9	3.5	3.1	2.7	2.3	35 ⁵ / ₈
	340	24.9	5.5	5.3	4.8	4.3	3.9	3.5	3.0	2.6	39 ⁵ / ₈
	344	27.5	6.1	5.8	5.3	4.8	4.3	3.8	3.4	2.9	43 ⁵ / ₈
	348	30.2	6.7	6.4	5.8	5.3	4.7	4.2	3.7	3.1	47 ⁵ / ₈
	356	35.5	7.8	7.5	6.9	6.2	5.6	4.9	4.3	3.7	55 ⁵ / ₈
	364	40.8	9.0	8.6	7.9	7.1	6.4	5.7	5.0	4.2	63 ⁵ / ₈
	520	18.0	4.0	3.8	3.5	3.1	2.8	2.5	2.2	1.9	19 ⁵ / ₈
	524	22.2	4.9	4.7	4.3	3.9	3.5	3.1	2.7	2.3	23 ⁵ / ₈
	528	26.3	5.8	5.5	5.1	4.6	4.1	3.7	3.2	2.7	27 ⁵ / ₈
	532	30.5	6.7	6.4	5.9	5.3	4.8	4.2	3.7	3.2	31 ⁵ / ₈
	536	34.6	7.6	7.3	6.7	6.0	5.4	4.8	4.2	3.6	35 ⁵ / ₈
	540	38.7	8.6	8.2	7.5	6.7	6.1	5.4	4.7	4.0	39 ⁵ / ₈
	544	42.9	9.5	9.1	8.3	7.5	6.7	6.0	5.2	4.5	43 ⁵ / ₈
	548	47.1	10.4	9.9	9.1	8.2	7.4	6.5	5.7	4.9	47 ⁵ / ₈
	556	55.5	12.3	11.7	10.7	9.7	8.7	7.7	6.8	5.8	55 ⁵ / ₈
	564	63.6	14.1	13.4	12.3	11.1	10.0	8.8	7.8	6.6	63 ⁵ / ₈
	732	39.5	8.7	8.3	7.6	6.9	6.2	5.5	4.8	4.1	31 ⁵ / ₈
	736	44.9	9.9	9.5	8.7	7.8	7.0	6.2	5.5	4.7	35 ⁵ / ₈
	740	50.3	11.1	10.6	9.7	8.8	7.9	7.0	6.1	5.2	39 ⁵ / ₈
	748	61.1	13.5	12.9	11.8	10.6	9.6	8.5	7.5	6.4	47 ⁵ / ₈
	756	71.9	15.9	15.2	13.9	12.5	11.3	10.0	8.8	7.5	55 ⁵ / ₈
	764	82.7	18.3	17.4	16.0	14.4	13.0	11.5	10.1	8.6	63 ⁵ / ₈
	1036	59.6	13.2	12.6	11.5	10.4	9.4	8.3	7.3	6.2	35 ⁵ / ₈
	1040	67.1	14.8	14.2	13.0	11.7	10.5	9.3	8.2	7.0	39 ⁵ / ₈
	1048	81.6	18.0	17.2	15.7	14.2	12.8	11.3	10.0	8.5	47 ⁵ / ₈
	1056	96.3	21.3	20.3	18.6	16.8	15.1	13.4	11.7	10.0	55 ⁵ / ₈
	1064	110.7	24.5	23.4	21.4	19.3	17.4	15.4	13.5	11.5	63 ⁵ / ₈

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RATINGS • CONTINUED

Enclosure Type and Height	Convector Unit No.	Sq. Ft. Rating Steam 215°F. 240 Btu	Average Water Temperature °F.								Convector Length "L" Inches
			215	210	200	190	180	170	160	150	
			Heat Emission in Btu								
			221	211	193	174	157	139	122	104	
32" NFS, OF, PF and 28" W, SW	320	13.3	2.9	2.8	2.6	2.3	2.1	1.8	1.6	1.4	19 ⁵ / ₈
	324	16.3	3.6	3.4	3.1	2.8	2.6	2.3	2.0	1.7	23 ⁵ / ₈
	328	19.3	4.3	4.1	3.7	3.4	3.0	2.7	2.4	2.0	27 ⁵ / ₈
	332	22.3	4.9	4.7	4.3	3.9	3.5	3.1	2.7	2.3	31 ⁵ / ₈
	336	25.3	5.6	5.3	4.9	4.4	4.0	3.5	3.1	2.6	35 ⁵ / ₈
	340	28.3	6.3	6.0	5.5	4.9	4.4	3.9	3.5	2.9	39 ⁵ / ₈
	344	31.3	6.9	6.6	6.0	5.4	4.9	4.4	3.8	3.3	43 ⁵ / ₈
	348	34.3	7.6	7.2	6.6	6.0	5.4	4.8	4.2	3.6	47 ⁵ / ₈
	356	40.3	8.9	8.5	7.8	7.0	6.3	5.6	4.9	4.2	55 ⁵ / ₈
	364	46.3	10.2	9.8	8.9	8.1	7.3	6.4	5.6	4.8	63 ⁵ / ₈
	520	20.6	4.6	4.3	4.0	3.6	3.2	2.9	2.5	2.1	19 ⁵ / ₈
	524	25.4	5.6	5.4	4.9	4.4	4.0	3.5	3.1	2.6	23 ⁵ / ₈
	528	30.2	6.7	6.4	5.3	5.3	4.7	4.2	3.7	3.1	27 ⁵ / ₈
	532	35.0	7.7	7.4	6.8	6.1	5.5	4.9	4.3	3.6	31 ⁵ / ₈
	536	39.7	8.8	8.4	7.7	6.9	6.2	5.5	4.8	4.1	35 ⁵ / ₈
	540	44.4	9.8	9.4	8.6	7.7	7.0	6.2	5.4	4.6	39 ⁵ / ₈
	544	49.2	10.9	10.4	9.5	8.6	7.7	6.8	6.0	5.1	43 ⁵ / ₈
	548	53.9	11.9	11.4	10.4	9.4	8.5	7.5	6.6	5.6	47 ⁵ / ₈
	556	63.5	14.0	13.4	12.3	11.0	10.0	8.8	7.7	6.6	55 ⁵ / ₈
	564	70.2	15.5	14.8	13.5	12.1	11.0	9.8	8.6	7.3	63 ⁵ / ₈
	732	44.6	9.9	9.4	8.6	7.8	7.0	6.2	5.4	4.6	31 ⁵ / ₈
	736	50.6	11.2	10.7	9.8	8.8	7.9	7.0	6.2	5.3	35 ⁵ / ₈
	740	56.7	12.5	12.0	10.9	9.9	8.9	7.9	6.9	5.9	39 ⁵ / ₈
	748	68.9	15.2	14.5	13.3	12.0	10.8	9.6	8.4	7.2	47 ⁵ / ₈
	756	81.1	17.9	17.1	15.7	14.1	12.7	11.3	9.9	8.4	55 ⁵ / ₈
	764	93.3	20.6	19.7	18.0	16.2	14.6	13.0	11.4	9.7	63 ⁵ / ₈
	1036	67.2	14.9	14.2	13.0	11.7	10.6	9.3	8.2	7.0	35 ⁵ / ₈
	1040	75.4	16.7	15.9	14.6	13.1	11.8	10.5	9.2	7.8	39 ⁵ / ₈
	1048	91.8	20.3	19.4	17.7	16.0	14.4	12.8	11.2	9.5	47 ⁵ / ₈
	1056	108.2	23.9	22.0	20.9	18.8	17.0	15.0	13.2	11.3	55 ⁵ / ₈
	1064	124.6	27.5	26.3	24.0	21.7	19.6	17.3	15.2	13.0	63 ⁵ / ₈

NOTE: Standard enclosure length equals convector length "L" plus 1¹/₂".

For Sizing Arco Multifins for Steam use the following Simple Formula:
After calculating the heat loss of the room in Btu's, using a recognized and approved method, it is only necessary to divide the Btu heat loss by 240 to obtain the Equivalent Direct Radiation (EDR) and select proper size convector from Steam Rating Columns in above table. For example: Assuming 6000 Btu per hour as the heat loss of the room and 20" to 24" available enclosure height. 6000 ÷ 240 = 25.0 sq. ft. EDR. Referring to Steam Rating Columns in table we find— Unit No. 532 = 27.4 Sq. Ft. (20" Enc. Height), Unit No. 528 = 26.3 Sq. Ft. (24" Enc. Height).

For Sizing Arco Convector for Forced Hot Water use this Simple Formula:
Calculate heat loss of the room in Btu's, same as outlined for steam. Divide heat loss by 1000 to determine MBH (thousand Btu per hour). Then, in Rating Tables locate the required MBH for the average water temperature desired and determine Convector from Unit No. column (in line with MBH selected) — keeping in mind the Enclosure width and height required. For example: Assuming 6000 Btu (or 6.0 MBH) per hour as the heat loss of the room and average water temperature in Convector 190° with 20" to 24" available Enclosure Height. Referring to Rating Tables in 190° column, we find— Unit No. 540 = 6.1 MBH (20" Enc. Height), Unit No. 536 = 6.0 MBH (24" Enc. Height).

FOR SIZING ARCO MULTIFIN CONVECTORS FOR GRAVITY HOT WATER

HEAT EMISSION IN B.T.U. PER SQ. FT.								
Average Water Temperature °F.	215	210	200	190	180	170	160	150
GRAVITY CIRCULATION	192	183	167	151	135	120	106	90

For Gravity Circulation, divide the calculated Btu heat loss by the Heat Emission listed above for Gravity Circulation, based on the average water temperature to be used, and select convector on the basis of the resulting square feet of equivalent steam rating.

EXAMPLE:
Assume 6000 Btu per hour as the heat loss of a room and 180°F. as the average water temperature:
Btu required 6000
Heat Emission 135 = 44.4 square feet

Referring to column of steam ratings, select convector having the unit number and enclosure height desired, as near this rating as possible. See following example:

No. 548 — 20" E.H. — 42.2 sq. ft.
No. 740 — 20" E.H. — 46.2 sq. ft.
No. 544 — 24" E.H. — 42.9 sq. ft.
No. 736 — 24" E.H. — 44.9 sq. ft.
No. 540 — 32" E.H. — 44.4 sq. ft.
No. 732 — 32" E.H. — 44.6 sq. ft.

LOCATING CONVECTOR UNITS

While the placing of Convector in the rooms is a matter for the good judgment of the installer, we list below a few hints that may be helpful:

1. The best location for Convector is under windows, thus permitting the rising currents of heated air to blanket the window area and counteract drafts.
2. Two Convector placed under windows at strategic points are better than one large one. They also permit the use of smaller units that do not interfere with the proper hanging of draperies.
3. Where only one Convector is used, place it under the window that has the greatest heat loss.
4. In the case of a large window with smaller ones on each side, install the Convector under the large window.

5. Where Convector cannot, for some reason, be located under windows they should be placed against outside walls. If possible, select a location against a wall close to and diagonally opposite a window.

6. Convector should be located on the side or sides of the rooms with the coldest exposure. With one Convector, favor the exposure that has the strongest winds.

With the right amount of heating surface and the right number and location of Multifin Convector, there should be no difficulty in providing satisfactory results in comfort and economy.

It is recommended that recesses in outside wall be insulated.

special service line

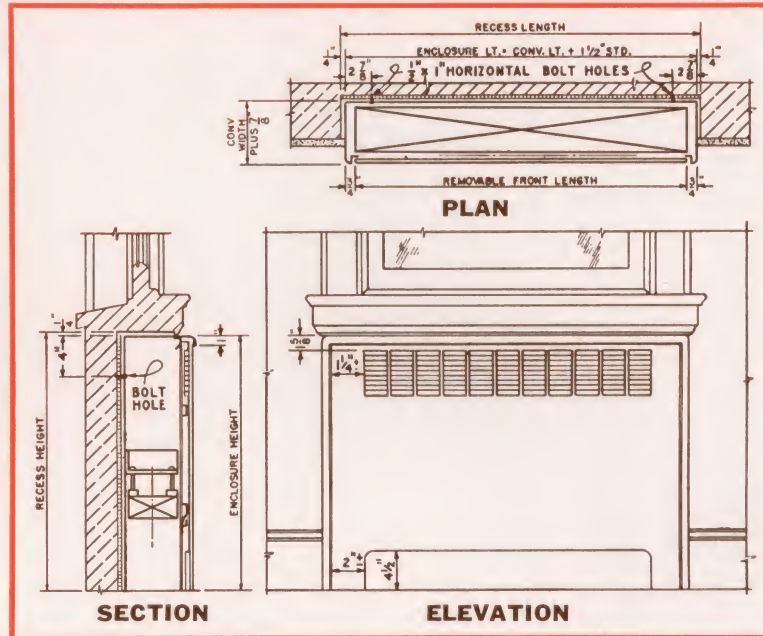
ARCO MULTIFIN

CONVECTORS and ENCLOSURES

Type NFS—complete enclosure



TYPE NFS—A complete enclosure for general use—partially recessed or free standing. Removable front.



Enclosure is $1\frac{1}{2}$ " longer and $\frac{7}{8}$ " deeper than corresponding convector and is made in standard heights of 20", 24" and 32". Ends are provided with knock-outs for end connections if used. Back is provided with holes for securing enclosure to back of recess. Access to valve is through inlet arch.

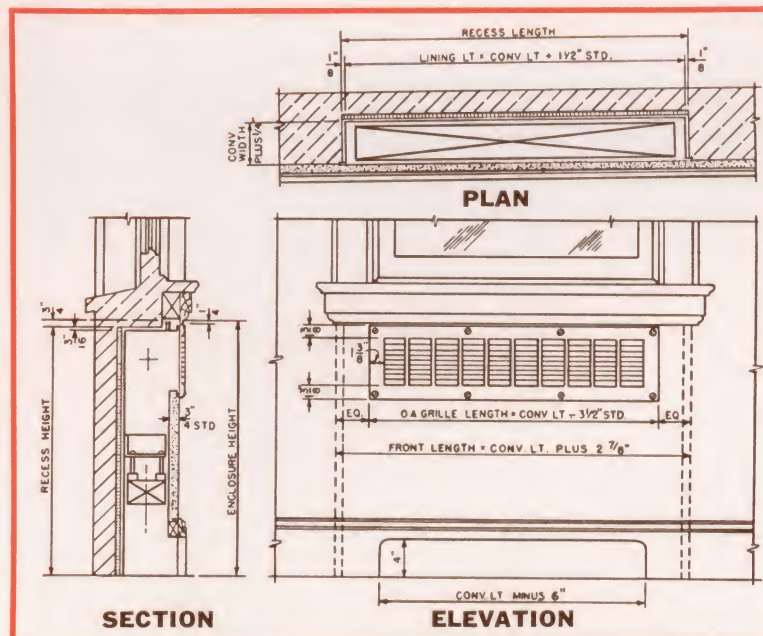
RECESS DIMENSIONS: Length = Enclosure length plus $\frac{1}{2}$ ". Height = enclosure height plus $\frac{1}{4}$ ". Depth depends on wall construction.

INSTALLATION—It is recommended that X-4 (underneath) connection and gate valve be used wherever possible. If other connections are required and enclosure is recessed, provision must be made for valve and trap space and access to valve. If recessed, plaster should finish against the ends and top of enclosure. Scribe moulding may be used if desired.

TYPE PF (PLASTER FRONT) COMPLETE ENCLOSURE



TYPE PF (Plaster Front)—A complete enclosure for fully recessed installation with plaster or tile treatment.



The front rests against the studding, being $1\frac{3}{8}$ " longer than lining and is provided with holes for securing wire lath. The throat projects $\frac{3}{4}$ " for thickness of plaster unless otherwise specified and is flanged to receive outlet grille.

RECESS DIMENSIONS: Length = lining length plus $\frac{1}{4}$ ". Height = enclosure height minus $\frac{3}{4}$ ". Depth = convector width plus $\frac{3}{8}$ " plus wall finish. When tile is specified a $1\frac{1}{2}$ " throat to receive outlet grille is furnished.

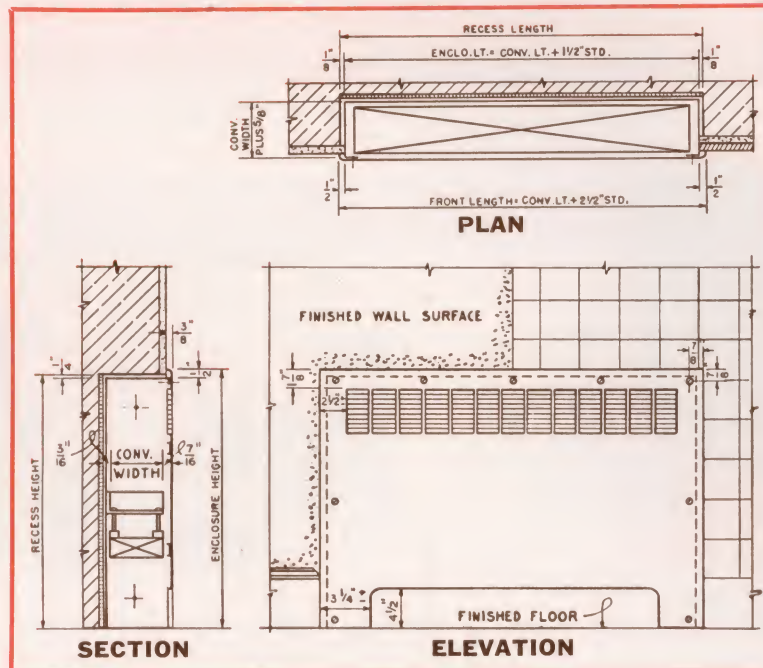
INSTALLATION—It is recommended that X-4 (underneath) connection and gate valve be used wherever possible and 4" inlet arch in baseboard be provided. If other connections are used, provision must be made for valve and trap space and access to valve.

EFFICIENT • DEPENDABLE • ATTRACTIVE

TYPE *OF* (OVERLAP FRONT $\frac{3}{8}$ " ROLLED EDGE) COMPLETE ENCLOSURE



TYPE OF (Overlap Front— $\frac{3}{8}$ " Rolled Edge)—A complete Enclosure for completely recessed treatment.



For fully recessed installation, either in blank walls or under windows. The front overlaps lining $\frac{1}{2}$ " at top and each end and is secured to lining by screws. The enclosure lining is $1\frac{1}{2}$ " longer and $\frac{5}{8}$ " deeper than corresponding Convector. The front, or "enclosure height," is made in standard heights of: 20", 24" and 32". The ends are provided with holes for securing to ends of recess. Access to valve is obtained through inlet arch.

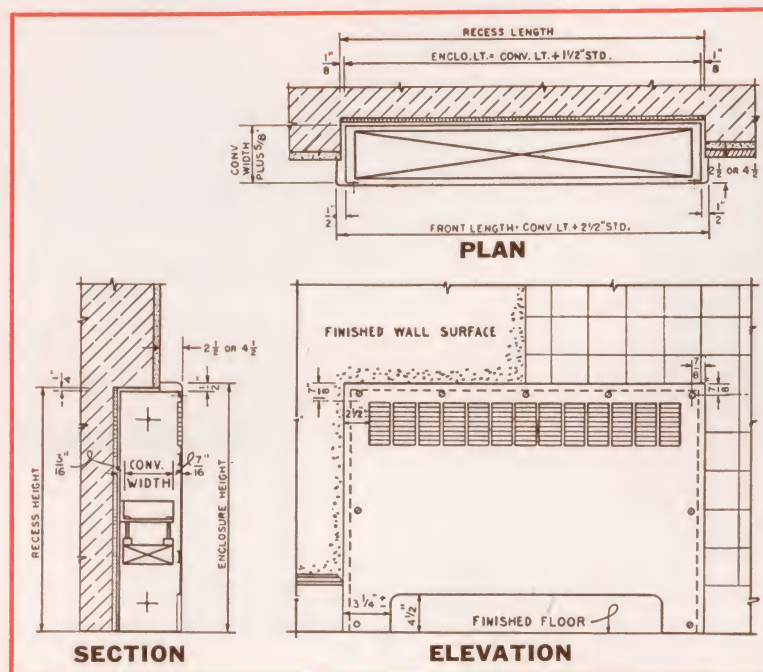
RECESS DIMENSIONS: Length = lining length plus $\frac{1}{4}$ ". Height = front height minus $\frac{1}{4}$ ". Depth = Convector depth plus $\frac{3}{8}$ ".

INSTALLATION—It is recommended that X-4 (underneath) connection and gate valve be used wherever possible. If other connections are required, provision must be made for valve and trap space and access to valve. For cases where recess is of insufficient depth to accommodate enclosure with $\frac{3}{8}$ " rolled edge front, see data below on OF enclosures with Flanged Fronts.

TYPE *OF* (OVERLAP FRONT $2\frac{1}{2}$ " or $4\frac{1}{2}$ " FLANGE) COMPLETE ENCLOSURE



TYPE OF (Overlap Front— $2\frac{1}{2}$ " Flange for No. 5 or $4\frac{1}{2}$ " Flange for No. 7 Convectors)—Complete Enclosures for partially recessed treatment.



RECESS DIMENSIONS: Length = lining length plus $\frac{1}{4}$ ". Height = front height minus $\frac{1}{4}$ ". Depth = lining depth minus flange depth.

INSTALLATION—It is recommended that X-4 (underneath) connection and gate valve be used wherever possible. If other connections are required, provision must be made for valve and trap space and access to valve.

Flange sizes of $2\frac{1}{2}$ " for No. 5 Convector and $4\frac{1}{2}$ " for No. 7 Convector are designed for application on standard 2" x 4" stud wall construction with $\frac{3}{4}$ " Lath and Plaster, and allows clearance for installing insulation at back of

For partially recessed installation, either in blank walls or under windows. The front overlaps lining $\frac{1}{2}$ " at top and each end and is secured to lining by screws. The enclosure lining is $1\frac{1}{2}$ " longer and $\frac{5}{8}$ " deeper than corresponding Convector. The front, or "enclosure height," is made in standard heights of 20", 24" and 32". Ends are provided with holes for fastening to ends of recess. Access to valve is through inlet arch.

recess, up to $\frac{1}{2}$ " thickness. Other size flanges not available. Type NFS Enclosure should be used for No. 10 Convector except where complete recess treatment is permissible, or where sufficient recess depth is provided to permit use of standard flange. Where 2" x 6" stud wall construction is used, flange sizes can be $2\frac{1}{2}$ " for No. 7 Convector and $4\frac{1}{2}$ " for No. 10 Convector. Proper flange size must be shown on order.

special service line

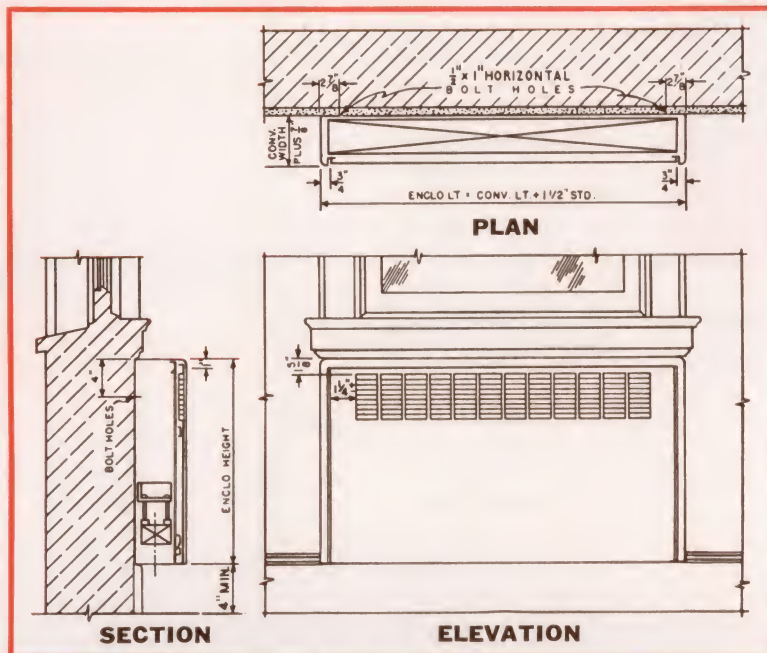
ARCO MULTIFIN

CONVECTORS and ENCLOSURES

Type W (FLAT TOP)



TYPE W (Flat Top)—A complete Enclosure for wall hung treatment. Removable front.



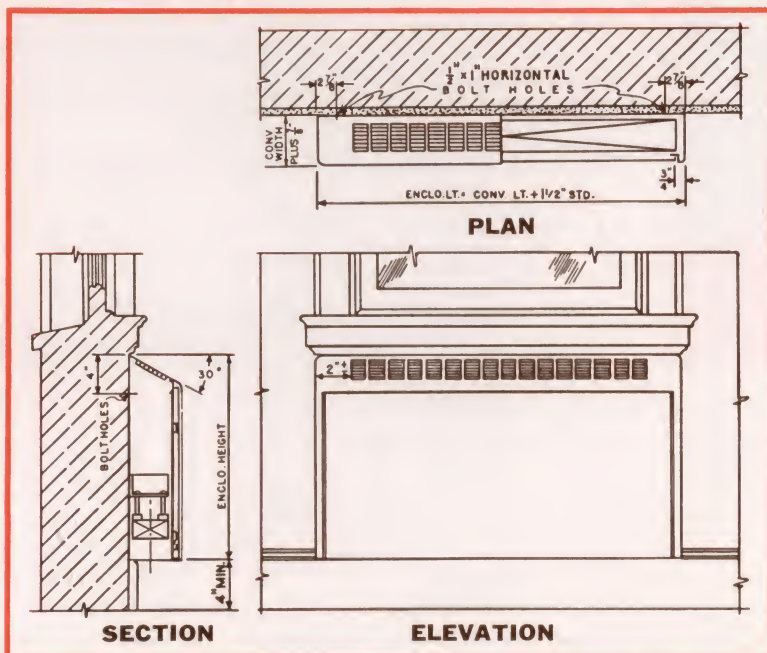
The enclosure is $1\frac{1}{2}$ " longer and $\frac{7}{8}$ " deeper than corresponding Convector and is made in standard heights of 16", 20", and 28". The ends are provided with knockouts when end connections are used. The back is provided with holes for securing to wall.

INSTALLATION—It is recommended that X-4 (underneath) connection and gate valve be used wherever possible. If other connections are required, provision must be made for valve and trap space and access to valve. Enclosure not available with extra length.

TYPE SW (SLOPING TOP)



TYPE SW (Sloping Top)—A complete Enclosure for wall hung treatment. Removable front.



The enclosure is $1\frac{1}{2}$ " longer and $\frac{7}{8}$ " deeper than corresponding Convector and is made in standard heights of 16", 20" and 28". The ends are provided with knockouts when end connections are used. The back is provided with holes for securing to wall.

INSTALLATION—It is recommended that X-4 (underneath) connection and gate valve be used wherever possible. If other connections are required, provision must be made for valve and trap space and access to valve. Enclosure not available with extra length.

ENCLOSURE SPECIFICATIONS

AMERICAN Enclosures are regularly furnished with:
Integral Stamped Streamline Front Outlet Grille.
Sanitary Arched Inlet Opening.
Exposed Corners and Edges rounded on $\frac{1}{2}$ " radius.
Welded-in Convector supporting Brackets.

Welded-in Bottom Floor Angle Clips.
Slotted Bolt Holes in back.
Prime Coat of Gray Paint.

FOR "SPECIAL SERVICE LINE" ENCLOSURES SPECIAL AND OPTIONAL FEATURES AT EXTRA COST

AMERICAN Enclosures can be furnished with Inlet Grilles for Types NFS, OF and PF, Access Doors for all types, Dampers of either Beaded Chain or Knob Type and practically any other Special feature that may be required for

any type of installation, or to fit any Specifications, Data or Application. All inquiries will receive prompt and careful attention.

AMERICAN HEATING ACCESSORIES FOR CONVECTOR INSTALLATIONS



No. 999 Arco Packless Radiator Valve

Angle Pattern for Steam. It never leaks, never needs re-packing, cannot stick and opens with one smooth turn of the ever-cool handle. A better valve for better service. R.H. Threads. Sizes: $\frac{1}{2}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ " and $1\frac{1}{2}$ ".



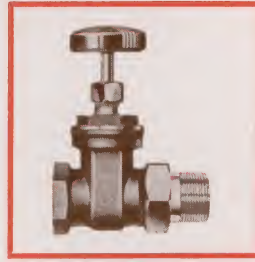
No. 993 Arco Packless—Gate Pattern

A gate pattern valve with all Arco Packless advantages to recommend it. It will give good service indefinitely, never leak and banish all future expense of re-packing. R.H. Threads. Sizes: $\frac{1}{2}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ " and $1\frac{1}{2}$ ".



No. 901 Arco Packless Radiator Valve

Angle Pattern for Gravity Hot Water. A quality valve, with adjustable stop, with many features that assure smooth performance and long service. No. 902, same valve but for Forced Hot Water. R.H. Threads. Sizes: No. 901— $\frac{1}{2}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ " and $1\frac{1}{2}$ ". No. 902— $\frac{1}{2}$ " and $\frac{3}{4}$ ".



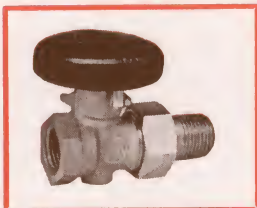
No. 373 "Detroit" Gate Pattern Valve

Packed type. An excellent valve that meets every requirement for dependable and lasting service. Does not have the packless feature but in all respects a quality product. R.H. Threads. Sizes: $\frac{1}{2}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ " and $1\frac{1}{2}$ ".



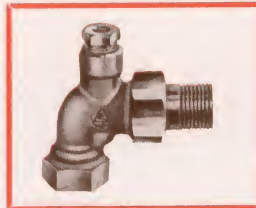
No. 116 "Detroit" Circulator Valve

Angle Pattern for Hot Water, with Union outlet and female threaded inlet. No. 216, same valve with female sweat connection inlet. Sizes: No. 116— $\frac{1}{2}$ ", $\frac{3}{4}$ " and 1". No. 216— $\frac{3}{8}$ ", $\frac{1}{2}$ ", and $\frac{3}{4}$ ".



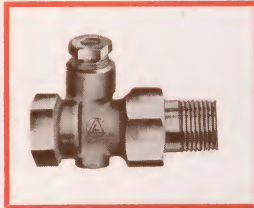
No. 117 "Detroit" Circulator Valve

Straightway Pattern for Hot Water, with union outlet and female threaded inlet. No. 217, same valve with female sweat connection inlet. Sizes: No. 117— $\frac{1}{2}$ ", $\frac{3}{4}$ ". No. 217— $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ ".



No. 133 Arco Balancing Elbow

Angle Pattern for Hot Water, with union outlet and female threaded inlet. Permits balancing of individual radiators. No. 233, same valve with female sweat connection inlet. Sizes: No. 133, $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ ", and 1". No. 233— $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ ".



No. 134 Arco Balancing Straightway Fitting

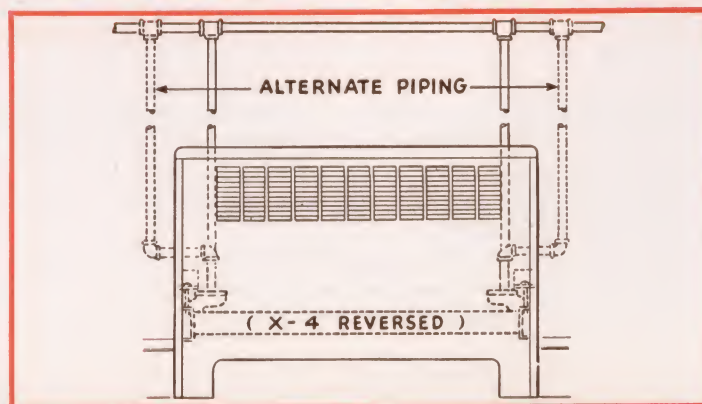
For Hot Water, with union outlet and female threaded inlet. Permits balancing of individual radiators. No. 234, same fitting with female sweat connection inlet. Sizes: No. 134— $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ " and 1". No. 234— $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ ".



No. 132 "Detroit" Plain Elbow

For Hot Water, without Balancing feature, with union outlet and female threaded inlet. No. 232, same Elbow with female sweat connection inlet. Sizes: No. 132— $\frac{1}{2}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ " and $1\frac{1}{2}$ ". No. 232— $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ ".

DOWNFEED HOT WATER (FORCED CIRCULATION) SYSTEMS SUGGESTED CONNECTION



marine

ARCO CONVECTOR • ENCLOSURE

The Arco Marine Convector is a non-ferrous type unit that is particularly well adapted for providing heating comfort on board ship. It can be used for all two pipe systems,—steam or water. Due to correct design, it not only contains the maximum heating surface in the smallest space, but has the light weight and flexibility

to meet all installation conditions. Good workmanship, combined with rigid factory inspections and tests assure product of required sturdiness for lasting service. Arco Marine Convectors as well as the American Enclosures that make up the complete units, can be relied upon for dependable, efficient performance over the years.

TYPE *MW* MARINE CONVECTOR (WALL HUNG)

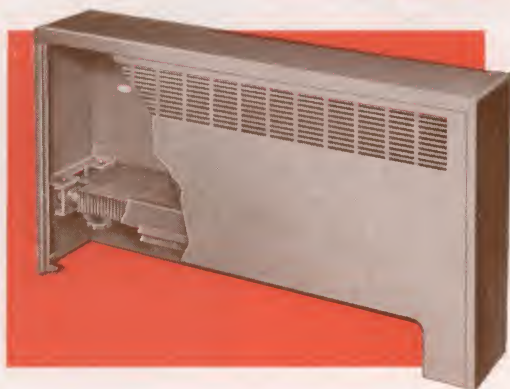


TYPE MSW MARINE CONVECTOR (WALL HUNG)



Both the MW and MSW shown above are complete units designed to be hung on bulkheads. They have tight-fitting, removable pan type fronts and are rodent proof. The ends are provided with knockouts when end connections are ordered. Backs have necessary holes for mounting on bulkhead or bulkhead brackets. Streamlined outlet grille and rounded corners are standard.

TYPE *MD* MARINE CONVECTOR (RESTS ON DECK)



A complete unit for deck installation. Bottom of enclosure fastens to deck, with back bolted to bulkhead. It can also be partially recessed, where possible and desired. Has a removable pan type front and is rodent proof. The ends are provided with knockouts when end connections are ordered. The back is provided with holes for securing to bulkhead or bulkhead brackets and the ends are provided with angle clips at bottom for fastening to deck.

MOUNTING FACILITIES

Arco Marine Convectors are provided with holes in the back for fastening them to bulkheads. All brackets for

mounting enclosures are furnished by shipyards, in accordance with actual needs.

NOTE: For Ratings and Data see pages 8 and 9.

For Convector Dimensions and Tappings see page 7.

For Enclosure Dimensions;

Types MW and MSW—same as Types W and SW on page 12.

Type MD—same as Type NFS on page 10.

For Approximate Weights see current Price Book.

FOR SHIPBOARD INSTALLATION

ORDERING INSTRUCTIONS

In ordering specify "Arco Marine Convector"; unit number (from Rating Tables on pages 8 and 9); type (MW, MSW or MD), type of connection from "Dimensions and Tappings" diagram on page 7, kind of system (2-Pipe

Steam or Water), tapping size (Supply and Return), enclosure height and any extra features desired such as dampers, air chamber, access doors, etc.

ENCLOSURE HEIGHTS AND LENGTHS

Standard enclosure heights are listed in the Tables of Capacities on pages 8 and 9. MW, MSW, and MD enclosures are $1\frac{1}{2}$ " longer than Convector length.

DETAILS OF BRACKETS AND MOUNTINGS

(Note: All brackets and attachments to be furnished by shipbuilder)

Listed below are several methods for accomplishing the hanging, setting and fastening of Convectors under various conditions. However, most shipbuilders are thoroughly familiar with this

routine, from many previous installations. Therefore, the procedures outlined below for solving various problems are submitted merely as a guide, in case such information is required.

TYPES MW, MSW AND MD CONVECTORS

A. Where Bulkhead has sufficient strength to support Convector. The Convector is attached directly to bulkhead by the use of bolts through the openings provided in back of enclosure.

B. Where Bulkhead is too light to support Convector. In these cases straps of necessary length, size and strength are bolted or welded to uprights supporting deck, and Convectors bolted to the straps.

C. Where it is necessary to mount Convector away from Bulkhead instead of "A" or "B." This is accomplished by the use of brackets made of straps or plates of proper size and strength and of necessary length to provide the right distance between Convector and bulkhead. Ends of these brackets are turned in at right angles to present a flat surface. One end of bracket is fastened to bulkhead, and the other end bolted to enclosure. See sketch at right. This method also applies

where bulkhead is curved or slanting, except in these instances one of the brackets must be longer to offset the arc or angle of bulkhead and keep the Convector vertical.

D. Reinforcing Bulkhead where necessary to support Convector. Generally two straps of proper thickness, width and length are attached horizontally behind bulkhead, the right distance apart. Convector on other side of bulkhead is then bolted to these reinforcing straps. Or, it is often possible to use one reinforcing strap, augmented by brackets fastened to deck and bottom ends of enclosure. These brackets are simply a plate with end turned in at right angles.

E. For Type MD Convectors resting on deck. The usual method is to bolt enclosure to bulkhead as described in "A," "B," "C" and "D," and fasten to deck by use of angle clip on enclosure.



It is recommended that X-4 (underneath), connections, and gate valve be used wherever possible. If other connections are required, provision must be made for valve and trap space and access to valve.

STEAM CAPACITIES AT VARIOUS GAUGE PRESSURES

GAUGE PRESSURE LBS. PER SQ. IN.	1	5	10	15	20	25	30	35	40	45	50
BTU PER SQ. FT. E.D.R.	240	268	294	323	347	368	389	408	425	449	453
PERCENT INCREASE OVER CATALOG RATINGS	0	11½	22½	34½	44½	53½	62	70	77	83	89

Arco Multifin Convectors are suitable for all working pressures up to 50 lbs.

STANDARDIZED

ARCO MULTIFIN CONVECTORS AND AMERICAN ENCLOSURES

"Standardized" Arco Multifin Convectors and AMERICAN Enclosures offer a selection of non-ferrous Units that meet any installation problem. They are adapted for homes, apartments, offices, institutions, ships or any other types or kind of structure. Both the Convectors and Enclosures

are scientifically engineered and proportioned to do a highly efficient and satisfactory job of heating. Study construction assures long enduring service. The complete line is divided into three classes, all of equal quality, as detailed below.

STOCK MODELS For Gravity or Forced Hot Water Only

(See Pages 1 to 5.)

These Units suffice for all ordinary Gravity or Forced Hot Water jobs. Individual Units consist of a Multifin Heating Element and an NFS Enclosure, for either free standing or semi-recessed installation. They are arranged for X-4 underneath connection only, and available with the efficient Arco Air Chamber and dependable Full Flow Chain

Damper. Stock Models are completely assembled and packed in protective sealed cartons. Their light weight permits labor-saving handling on the job. They can be stocked with minimum effort and expense, . . . readily available for filling orders and keeping records.

SPECIAL SERVICE LINE For Hot Water and Two-Pipe Steam

(See Pages 6 to 12.)

For specialized installations, involving sizes and features of any nature, not available in Stock Models. Practically any specification can be met with the Special Service Line including Enclosures of special design for Hospitals and

Institutions, additional tappings, either Knob or Chain Type Dampers, access doors and other out of the ordinary installation requirements. We invite inquiries concerning any problem you may have.

MARINE LINE For Hot Water and Two-Pipe Steam

(See Pages 14 and 15.)

For shipboard installations. Possess many outstanding features, . . . compact design, light weight, proved efficiency, strength and durability, attractive appearance. Easily cleaned . . . rodent proof. Dampers—knob or chain type—

and other special requirements can be furnished at small extra cost. Complete data supplied on receipt of specifications.

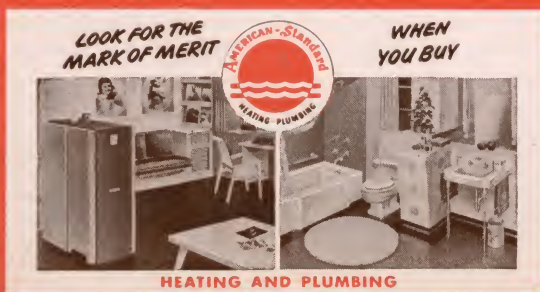
Arco Marine Convectors meet all demands of shipboard heating and may be selected with complete confidence.

CONVENIENT PAYMENTS

Arco Multifin Convectors are available for modernization on a liberal F.H.A. Time Payment Plan through the Heating and Plumbing Finance Corporation. This plan also applies to any other AMERICAN-Standard Heating or Plumbing Product. Your Heating and Plumbing Contractor will handle all details.

CONSULT YOUR HEATING CONTRACTOR OR ENGINEER

For more detailed information regarding installation and cost of Arco Multifin Convectors, as well as data on other AMERICAN-Standard Products, consult your Heating and Plumbing Contractor. He is equipped by knowledge and training to give you practical advice and will be glad to serve you.



**AMERICAN
RADIATOR & Sanitary**
CORPORATION
PITTSBURGH 30, PA.

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ARCO MULTIFIN CONVECTORS

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